

ABSTRACT

A blank mask includes a light transmissive substrate and a multilayer comprising a light shielding layer and a phase shift layer disposed between the light transmissive substrate and the light shielding layer. The phase shift layer includes an upper surface facing the light shielding layer and a side surface connected to the upper surface, such that the light shielding layer is disposed on the upper surface and the side surface of the phase shift layer. When viewed from a top surface of the multilayer, the multilayer includes a central portion and an outer portion surrounding the central portion. The outer portion has a curved upper surface, which greatly suppresses damage to the phase shift layer by a cleaning solution and effectively reduces a frequency of particle generation at edges of the phase shift layer and the light shielding layer.

FIG. 1